

AMENDMENT

Listing of Claims:

The following listing of claims replaces all previous listings or versions thereof:

1-37. (Canceled)

38. (Previously Presented) A method of screening for modulators of a lipopolysaccharide mediated response comprising the steps of:

- a) obtaining a cell expressing a TLR-4 polypeptide;
- b) measuring a lipopolysaccharide mediated response mediated by the TLR-4 polypeptide;
- c) contacting the TLR-4 polypeptide with a putative modulator;
- d) assaying for a change in the lipopolysaccharide mediated response; and
- e) comparing the lipopolysaccharide mediated responses mediated by the TLR-4 polypeptide obtained in steps b) and d) above

wherein a difference in the lipopolysaccharide mediated responses indicates that the putative modulator is a modulator of a lipopolysaccharide mediated response.

39. (Original) The method of claim 38, wherein the TLR-4 polypeptide has the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:98 or SEQ ID NO:99.

40. (Previously Presented) The method of claim 39, wherein the lipopolysaccharide mediated response mediated by the TLR-4 polypeptide is determined by determining the ability of the TLR-4 polypeptide to stimulate transcription of a reporter gene, the reporter gene operatively positioned under control of a nucleic acid segment comprising a promoter from a TLR-4 gene.

41-51. (Canceled)

52. (Previously Presented) The method of claim 38, wherein said putative modulator is effective in altering the mediation of the lipopolysaccharide mediated response by TLR-4.

53. (Previously Presented) The method of claim 52, wherein said putative modulator is an agonist.

54. (Previously Presented) The method of claim 52, wherein said putative modulator is an antagonist.

55. (Previously Presented) The method of claim 52, wherein said putative modulator affects the transcription of TLR-4.

56. (Previously Presented) The method of claim 52, wherein said putative modulator affects the translation of TLR-4.

57. (Previously Presented) The method of claim 38, wherein the TLR-4 polypeptide has the amino acid sequence of SEQ ID NO:2.

58. (Previously Presented) The method of claim 38, wherein the TLR-4 polypeptide has the amino acid sequence of SEQ ID NO:4.

59. (Previously Presented) The method of claim 38, wherein the TLR-4 polypeptide has the amino acid sequence of SEQ ID NO:6.

60. (Previously Presented) The method of claim 38, wherein the TLR-4 polypeptide has the amino acid sequence of SEQ ID NO:98.

61. (Previously Presented) The method of claim 38, wherein the TLR-4 polypeptide has the amino acid sequence of SEQ ID NO:99.

62. (Canceled)
63. (Previously Presented) The method of claim 38, wherein said putative modulator inhibits TLR-4 directed signaling of TNF secretion.
64. (Previously Presented) The method of claim 38, wherein said putative modulator stimulates TLR-4 directed signaling of TNF secretion.
65. (Previously Presented) The method of claim 38, wherein said putative modulator to be screened is obtained from a library of synthetic chemicals.
66. (Previously Presented) The method of claim 38, wherein said putative modulator to be screened is obtained from a natural source.
67. (Currently Amended) The method of claim ~~65~~66, wherein said natural source is selected from the group consisting of animals, bacteria, fungi, plant sources and living marine samples.
68. (Previously Presented) The method of claim 38, wherein said putative modulator to be screened is a protein or peptide.
69. (Canceled)
70. (Previously Presented) The method of claim 38, wherein said putative modulator to be screened is a nucleic acid molecule.
71. (Previously Presented) The method of claim 38, wherein said putative modulator to be screened is a stimulator of an immune response.
72. (Previously Presented) The method of claim 71, wherein said stimulator of an immune response is a cytokine.

73. (Previously Presented) The method of claim 71, wherein said stimulator of an immune response is an interferon.

74. (Previously Presented) The method of claim 38, wherein said TLR-4 polypeptide is encoded by a nucleic acid sequence selected from the group comprising SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:46, SEQ ID NO:47 and SEQ ID NO:48.

75. (Previously Presented) The method of claim 38, wherein said putative modulator to be screened is an IL-1 receptor antagonist.

76-99. (Canceled)

100. (Previously Presented) The method of claim 38, wherein the TLR-4 polypeptide has the amino acid sequence selected from the group comprising SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:98 and SEQ ID NO:99.

101. (Previously Presented) The method of claim 38, wherein said putative modulator to be screened is a small molecule.

102. (Previously Presented) The method of claim 101, wherein said small molecule inhibits TLR-4 mediation of the lipopolysaccharide mediated response.

103. (Previously Presented) The method of claim 101, wherein said small molecule inhibits the lipopolysaccharide mediated response.